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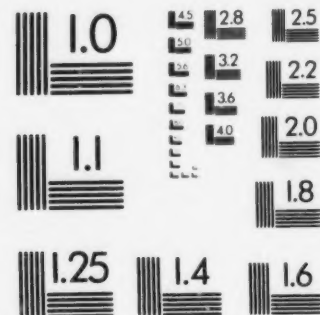
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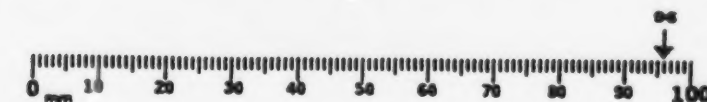
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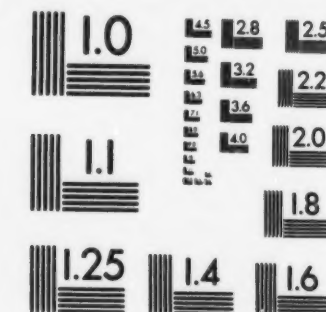
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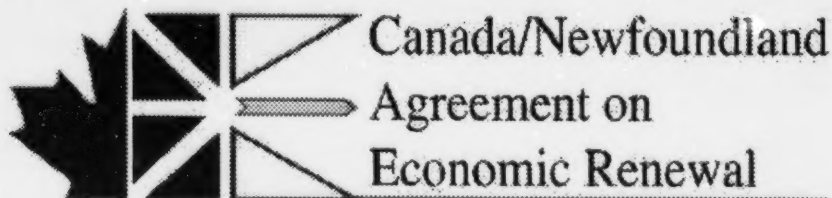
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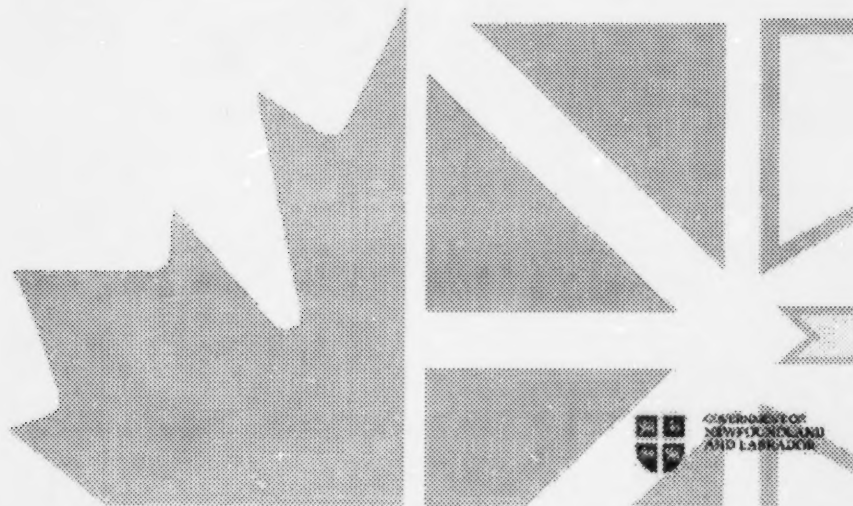
Sharing Coastal Resources

*A Study of Conflict Management in the
Newfoundland and Labrador Aquaculture Industry*

Prepared for:

**Aquaculture Component of the
Economic Renewal Agreement (ACERA)
October 1998**

Canada



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SECTION ONE: INTRODUCTION AND BACKGROUND

With abundant physical resources, skilled workers and scientific and technical support, there is considerable potential for growth in the province's aquaculture industry. In 1997, the Newfoundland and Labrador aquaculture industry employed 471 people and produced 1,800 tonnes of products with a farm gate value of \$5.1 million. The bulk of this production was steelhead and Atlantic salmon, followed by blue mussels. Farm gate value is expected to reach \$40 million in the year 2000, with 10,000 tonnes of production, half finfish and half shellfish. This is significant in light of the economic challenges in most of rural Newfoundland and Labrador.

Aquaculture, like any other developing industry, is facing some unique challenges. One such challenge, namely interest group opposition, has been significant enough in some areas, that the Department of Fisheries and Aquaculture has decided to review its policies regarding aquaculture development and look for a means of resolving the current conflict and avoiding future conflict situations.

First of all, it is important that we establish working definitions for opposition and conflict. Opposition refers to resistance or hostility, while conflict is a fight, struggle or strong disagreement. Opposition is often a natural response to the introduction of a new industry. It may delay development, whereas conflict restricts development. Matters of opposition should be fully addressed before they develop into conflict.

Within the past two years, the Aquaculture Registrar processed 196 applications for new sites or site expansions. While many applications prompted letters of concern from local interest groups, twelve of the 196 encountered significant opposition. Fishers' Committees were the primary objecting group in 58% of those applications, while cabin owners and home owners accounted for the remaining 42% of primary objections. Following the investment of significant time and resources into resolving these conflicts, the Aquaculture Licensing Committee approved ten of the twelve applications.

The purpose of this document is to present a policy framework on which the Aquaculture Licensing Committee and its associated agencies can base their licensing and regulatory decisions. The aim is to eliminate the source of opposition, and provide a means to avoid conflict in the future.

This project has been funded under the Aquaculture Component of the Canada/Newfoundland Agreement on Economic Renewal. The Agreement is implemented and managed jointly by both governments with the Atlantic Canada Opportunities Agency (ACOA) taking the lead for the federal government and Executive Council representing the provincial government. Participating departments responsible for ensuring the delivery of programs and projects specific to the Aquaculture Component of the Agreement are the federal Department of Fisheries and Oceans, the provincial Department of Fisheries and Aquaculture, and ACOA. Regional Economic Development Boards (REDBs) have been consulted throughout the process and are generally eager to define their role, if any, in conflict avoidance and resolution. The Newfoundland Aquaculture Industry Association (NAIA) has been a valuable link between government and the aquaculture industry, promoting aquaculture development throughout the province in a manner that will minimize opposition.

Study Areas - Green Bay South and Bay D'Espoir

Notre Dame Bay is the primary mussel growing area in Newfoundland and Labrador, producing approximately 65% of the provincial farm gate sales in 1997. This has been a welcome boost to the economy. Within Notre Dame Bay, the highest concentration of farms is in Green Bay, where 17 sites are currently licensed, occupying nearly 350 hectares. An additional 350 hectares have been requested.

Rapid expansion of the aquaculture industry in Green Bay South triggered conflict between farmers and other users of the marine/coastal resource. In order to determine the magnitude and nature of the problem, the Minister of Fisheries and Aquaculture placed a moratorium on license applications in Green Bay to allow time to investigate the conflict. For that reason, the Green Bay South area was selected as a study area to evaluate the sources of conflict and identify conflict management strategies.

Project Objectives:

To develop a policy framework in which the aquaculture industry is recognized as a legitimate user of aquatic/coastal resources, so that its needs are balanced with those of other resources.

To identify the roles of government and non-government agencies in the development of the aquaculture industry in Newfoundland and Labrador.

and identify conflict management strategies.

The Connaigre Peninsula has also seen considerable expansion in the finfish and shellfish culture industries and also has its share of conflict. Therefore, it was selected as a study area as well.

To develop a province-wide policy for avoiding and resolving conflict with respect to the aquaculture industry in Newfoundland and Labrador.

To promote responsible development of the aquaculture industry within the province.

Approach

Sources of information included personal interviews with growers, home and cabin owners, recreational boaters, commercial fishers and government officials and a review of aquaculture licensing files. Library and Internet searches were also conducted. Based on personal interviews and available literature, a report was prepared for the project steering committee. After receiving feedback and direction from the steering committee, a discussion paper was prepared and distributed to industry stakeholders and interest groups for review and input. This final review consisted of meetings in the study areas and written responses from other regions.

"Fair and effective mechanisms for resolving disputes over planning and resource management decisions are needed to ensure accountability and public confidence."

- Commission on Resources and Environment, The Provincial Land Use Strategy, Volume 4: Dispute Resolution

SECTION TWO: INTEREST GROUPS

Interest groups were generally tolerant of early development in the local aquaculture industry, although this tolerance was not without misgivings. Though they did not vocalize much of the apprehension in the early stages, the opposition eventually reached the point of restricting aquaculture development.

A trend among the interest groups is an increasing level of organization. In several regions of the province, people have joined forces to present unified opposition to aquaculture development. They hold meetings, organized and chaired by prominent community members, to formulate a corporate response to specific aquaculture applications as they arise. These meetings have resulted in petitions containing hundreds of names, and numerous letters to the Aquaculture Registrar stating the nature of their concerns.

A pattern was evident in several multi-farm communities. Invariably, one aquaculture site was the object of much criticism and opposition, while another was actually complimented by the same individuals who criticized the first. Sometimes, the difference was simply that one site was set up properly and the other not. However, the problem occasionally had more to do with the relationships among the individuals involved than with aquaculture itself.

Home Owners and Cabin Owners

Some home owners consider shellfish farms unsightly and hazardous to navigation. Residents fear

environmental contamination from finfish farms, and oppose expansion into residential areas. Home owners occasionally resent non-local residents establishing aquaculture sites in the area. However, employment opportunities for residents reduce this resentment.

Cabin owners reside in the area seasonally and do not rely on the water to make a living. Therefore, some of them coexist with farms and see no reason to prevent someone else from trying to make a living. Others have invested considerable sums of money developing their dream vacation spot and believe they have the right to an 'unobstructed' view, clean water and other perks the area has to offer.

Recreational Boaters (and Snowmobile Operators)

Traditionally, consisting of home owners and cabin owners, this interest group, especially in the Green Bay area, now includes a growing number of waterborne tourists from other Atlantic provinces and the Northeastern United States. Within the past five years, both the number and size of recreational vessels have increased dramatically. As more people choose Newfoundland and Labrador as a holiday destination, this trend will continue. Shoreline access and safe navigation are the primary concerns of this interest group. Even when farmers eliminate navigational hazards, residual tension exists because boaters and snowmobilers hesitate to navigate through the sites, fearing that unmarked hazards remain. Therefore, they still feel as though they have been forced out of their favorite recreation areas.

Inshore Fishers

Fishers' Committees, in some areas, have been willing to accommodate aquaculture development. They have only voiced opposition if a proposed farm was to cover or cut off access to a good fishing area. However, many inshore fish harvesters now indicate that aquaculture development is, or may soon be, restricting their ability to make a living from the fishery. They are actively opposing proposals for new sites or site expansions.

SECTION THREE: CONFLICT ISSUES

The issues are presented in their relative order of importance, with the full acknowledgement that the importance of each issue varies from region to region and from interest group to interest group.

Shorefast Moorings

The aquaculture industry often uses moorings that are attached directly to the shore. These moorings can be attached at many points, from underwater immediately offshore; to above the high water mark. To be able to use the area above the low water mark, growers have been required to get a foreshore lease from Crown Lands.

The Department of Fisheries and Aquaculture (DFA) has recently prepared a policy to govern the use of this mooring type. The policy says that 1) illegally placed moorings will have to be placed back within the boundaries of the site by June 30, 1998; 2) growers that have received a foreshore lease and have moorings attached above the low water mark will be encouraged to place them at the 2 metre depth, and; 3) any new sites must place the moorings within the boundaries of their approved site and at a minimum depth of water of two metres unless otherwise approved by the Canadian Coast Guard. For new sites, growers will not be permitted to attain a foreshore lease to attach above the low water mark.

Growers question both the financial feasibility of submerging anchors and the limited time allotted for doing so before the deadline. Spring is a very busy time of year for growers, whether they are moving salmonoid cages to their summer sites or socking mussel seed collected the previous year. The need for submerged anchors varies between regions and between gear types used. Growers are eager to have their personal circumstances and geographic conditions considered with respect to mooring regulations. Farmers' compliance with mooring regulations will be a major contributor to the avoidance of this conflict in future.

Recommendation:

1. **We recommend support of the existing "moorings" policy, with greater emphasis on the eventual removal of legal shore fasted moorings that are or may be a source of conflict.** The following is the "moorings" policy as it appears in the DFA's Aquaculture Licensing Policy and Procedures Manual:

AP. 22 Moorings

Scope

To ensure site markings are placed and marked adequately for the safety of other marine and land users in the vicinity of aquaculture sites.

Policy

- *All moorings to be contained within the boundaries of aquaculture facilities/sites.*
- *All new licensed sites must have moorings attached as per Coast Guard direction and requirements at least 3 metres below low water unless otherwise advised and directed by Canadian Coast Guard.*
- *Aquaculturists who hold riparian rights will be encouraged to place moorings 3 metres or more below low water. However, in the interest of safety, such lines while they remain shore fastened must be marked at 1 metre intervals with florescent ribbons of a type acceptable to the minister.*

Procedure

Concurrent with the establishing of this policy, there are a number of illegally shore fasted mooring systems, i.e. outside of site boundaries. Owners of sites with illegal mooring will be advised and have until June 30, 1998 to remove any illegal shore fast moorings and to attach same, within the boundaries of their site, at least 3 metres below low water and in compliance with Coast Guard requirements. In the interim period to June 30, 1998 all illegal shore fastenings must be marked at 1 metre intervals with florescent ribbon of a type acceptable to the minister until they are removed.

Rationale

To reduce safety hazards to travellers on the water or on shore and provide better access to upland and near shore areas, thereby reducing the occasion for conflict with other

resource users.

Fishery-Related Conflicts

Fishery-related conflicts occur primarily within the shellfish culture sector, the main concern being access to traditional fishing grounds. Disputes regarding size or positioning of proposed sites often deteriorate into personal conflicts rather than being resolved amicably in the early stages. Avoidance and resolution of these conflicts depends on both parties being reasonable, flexible and communicative. The aquaculture industry has begun to compromise in this area, providing shoreline channels and moving toward submerged moorings, in order to facilitate fishing activity in and around sites. Instances may occur where cooperation is possible and the Department of Fisheries and Aquaculture must step in to communicate and protect a grower's rights to equal access to the inshore water resource.

Both good and bad relationships between growers and fishers exist within any given region. Good relationships appear to depend on factors such as:

- willingness of applicant (grower) to consult with fishers prior to making the application
- open communication between growers and fishers
- growers ensuring that sites are set and marked according to specifications
- fishermen knowing where and how to set gear in and around sites and being willing to do so.

Fishers are generally opposed to establishing land (water) use designations. However, they have cooperated with such efforts to date by providing information regarding their traditional fishing areas. They see merit for its use as a tool to keep aquaculture away from traditional fishing areas but they are not in favor of using it to divide a resource between two (or more) users.

Often, the licensing decision made by the Minister of Fisheries and Aquaculture does not reflect the recommendation made by the Fishers' Committees. This happens because what fishers perceive as an unreasonable infringement on their livelihood is considered an acceptable option by government regulation and policy. The Department and Fishers' Committees must communicate about what can be done to minimize the possible negative impact of an aquaculture site, such as modifying proposed site configurations and cooperation between fishers and farmers. It is clear that communication is the key to resolving fishery-related conflict. Both growers and fishers must understand that cooperation is required in order to ensure optimal use of a limited resource.

Recommendation:

2. **We recommend that the DFA coordinate workshops for fishers in areas where aquaculture is, or will be occurring.** These workshops will show fishers how to carry out their traditional fishing activities within the boundaries of farm sites. On-site visits to demonstrate how fishers and growers can work together should be arranged.

Site Set Up and Marking

The improper set up of a site not only presents a hazard to boaters, but proves to be an annoyance as well. Also, navigational aids such as channel markers and properly identified cautionary buoys are often missing from sites altogether. The Coast Guard, in conjunction with the Newfoundland Aquaculture Industry Association and the DFA has developed a video which demonstrates how a farm should be

marked and how to navigate safely through a site. This video will be helpful to growers, recreational boaters and fishers. It is in the growers' best interest to have their sites marked in accordance with all regulations in the interest of safety and to limit liability in the event of an accident.

Recommendations:

3. **We recommend that government and/or NAIA take a lead role in producing and distributing supplementary materials (*pamphlets, etc.*) to follow up the site-marking video.**
4. **We recommend periodic broadcast of the site-marking video on community channels, where applicable.**
5. **We recommend that a DFA Aquaculture Inspector be on-site when anchors are placed at outer margins of new sites and expansions.** The Inspector may be on site longer, especially if the grower is new to the industry. Growers insist that site set up must not be delayed due to the Inspector's schedule.
6. **We recommend that new entrants to the aquaculture industry must have formal aquaculture training (or hire a trained consultant) prior to setting any gear.** This will reduce site placement or set-up errors.
7. **We recommend that the proposed Aquaculture Industry Code of Practice (See Recommendation # 37) include a detailed reference section on site set up and marking.**

Interest Group Consultation

Consultation is a very important element in the application process and it has the potential to reduce or minimize conflict. Fishers' Committees tend to prefer that communication be directed to the Chair of the Committee, as opposed to individuals within the group. Home owners are divided as to whether they want to be consulted individually or find out about the application when the Public Notice is printed. Some growers have had great success with individual consultation and others feel that the process simply stirs up controversy. This is especially true if previous aquaculture development in the area has been contentious. The Department currently suggests to applicants that they consult local residents prior to sending in their site application. This is an opportunity for feedback from interest groups which may reveal a potential source of conflict not yet considered by the applicant.

Recommendations:

8. **We recommend that license applications require the names and phone numbers of each person the applicant has contacted.** While it is not intended to be an exhaustive list of community members, this will facilitate an analysis of community views and demonstrate the effort the applicant has made to communicate with local residents and avoid possible conflict.
9. **We recommend that proposed sites be discussed in stakeholder meetings with one or two representatives of each interest group, rather than in large, public meetings.** Interest group members want the opportunity to discuss their concerns in a constructive manner and experience has shown that this is not always the case at public meetings. In this proposed new arrangement, interest groups would appoint their own representative(s), who would be responsible for taking

the information back to their respective groups. If all issues of concern cannot be resolved at this level, the open public meeting is still an option.

10. **We recommend that public meetings (including, if possible, the smaller scale meetings proposed in recommendation # 9) be mediated by a skilled, objective, and neutral party selected by the applicant and the interest groups concerned.** A local mediator may be chosen from several sources, including a Town Council, a Regional Economic Development Board, other government or non-government agency, or the community at-large. In cases where parties can not agree on a suitable local mediator, an independent mediator could be brought in from outside the community. This mediator, while not a decision maker, will ensure that all parties have an opportunity to speak and receive a response.

Site Inspection and Regulation Enforcement

Regulations exist which detail how sites should be set up and marked. To date, these regulations have been poorly enforced. Inspections have occurred periodically and warnings have been sent, but follow-up has been inadequate. Some growers feel that Inspectors should complete the same training programs as growers, in order to fully understand the constraints of the industry. Therefore, some growers are reluctant to see Dockside Inspectors and Fisheries Inspectors trained to carry out aquaculture inspections, unless there is extensive training involved. Growers see no problem in having Regional Aquaculture Development Officers do inspections within their own region, but appreciate that performing this dual role may be awkward. Therefore, the Department should make the final decision whether Development Officers should continue to inspect sites in their own region. Legitimate, extenuating circumstances must be taken into consideration during inspections, but inspectors must avoid leniency. Failure to enforce regulations at the earliest opportunity has contributed to some of the conflict with interest groups.

Recommendations:

11. **We recommend that Aquaculture Inspectors have a thorough understanding of the aquaculture industry, the gear used and the special concerns of the local area.**
12. **We recommend that the proposed Aquaculture Code of Practice Manual include a detailed description of everything the Aquaculture Inspector will check during a site inspection.**
13. **We recommend that Aquaculture Inspectors issue reports directly to farmers within 48 hours of completing an inspection.** The use of pre-carboned inspection forms may be reinstated in order to save time and ensure adequate documentation. Follow-up inspections must be scheduled immediately.
14. **We recommend that if site deficiencies remain, upon completion of follow-up inspections, the Department of Justice should be advised immediately and prosecution, if necessary, shall begin.** The Aquaculture Inspector shall decide whether extenuating circumstances (such as foul weather or back-ordered supplies) have prevented the necessary site improvements and shall reschedule an inspection at a later date.
15. **We recommend that senior government officials fully support Aquaculture Inspectors and follow through with prosecution initiatives.** Failure to do so will minimize the integrity of the

inspection process.

Lack of Industry Awareness

A striking feature among all interest groups was the lack of awareness of the positive impacts aquaculture has had on the community. Though aware of some employment generated by the farms, people doubted the actual magnitude of this benefit as well as the overall profitability of aquaculture. Also, misconceptions abound regarding the negative impacts of aquaculture. Though not a source of conflict, this lack of knowledge certainly makes conflict more bitter and more debilitating for aquaculturists. The industry must be promoted within the province. A sense of pride must be fostered about advancing the economic state of the region, producing premium quality products and competing for international markets.

Recommendation:

16. **We recommend that government and NAIA establish a campaign to promote the Newfoundland aquaculture industry.** Some topics and methods of promotion are shown below.

General Topics

- growing technology
- potential production rates and value
- environmental safety of aquaculture
- aquaculture and the fishery
- interest group cooperation
- navigation issues
- government roles in the industry
- channels for voicing concerns about farm maintenance

Action Items

- issue positive press releases about industry
- develop television commercials and programs
- promote industry in tourism-related publications
- establish local Aquaculture Fairs
- participate in farm shows and community festivals
- growers support in-school aquaculture projects
- growers sponsor a scholarship or a local team/event
- growers hire local co-op students

Site Maintenance/Aesthetics

Many growers understand the need to keep their shorelines free of used aquaculture gear and feed bags. However, they are frustrated by the notion of having their sites inspected for discarded aquaculture gear when domestic litter is far more prevalent and is not subject to enforcement. Nevertheless, more care must be taken to keep shore lines free of unnecessary litter.

Home and cabin owners are primarily concerned with the appearance of shellfish farms, due to the size of the sites and the type of gear used. Because of the relative newness of the industry, barrels in the water are not seen as a sign of development, like power lines or an industrial park. The challenge literally lies in getting residents to see beyond the buoys to the economic benefits aquaculture is bringing to the community. Proper maintenance would minimize opposition to aquaculture development as it relates to aesthetics.

Recommendations:

17. **We recommend that DFA take a more active role in ensuring that discarded materials and debris are removed from aquaculture sites.** Aquaculture Inspectors would incorporate shoreline inspections into the annual site inspections and issue warnings, as with other site deficiencies. If the offending person does not comply with a warning, particularly of a more serious offense, the matter will be referred to Environment Canada for enforcement under the Ocean Dumping Regulations.
18. **We recommend that proper site maintenance procedures be included in the proposed Aquaculture Industry Code of Practice.**

Public Notice Procedure

Most interest group members and growers interviewed indicated that the current public notice procedure is sufficient. Fishers appreciate and wish to continue receiving notification from the Aquaculture Registrar about aquaculture license applications. The twenty working-day period for responding to the public notice in writing is sufficient, except in cases where interest groups do not receive application details from the Aquaculture Registrar in time to submit a response.

Recommendations:

19. **We recommend that the Public Notice state that all written submissions must include phone numbers.** This ensures that those sending letters and signing petitions may be contacted for further information. This information would only be accessible to officials of the Department of Fisheries and Aquaculture.

Appeal Process

Applicants who feel their applications were rejected because government policies were not properly followed may request a review of their application by an independent committee appointed by the Department. This committee forwards a non-binding recommendation to the Minister, who makes the final decision. In cases where licences are approved, third parties, or interest groups, are not given such an opportunity to request a review, and they consider this unjust. The Department has held the view that interest groups have ample opportunity to state their concerns during the thirty days following Public

Notice. Ultimately, it is the responsibility of growers and interest group members to state issues and provide all pertinent information to the Licensing Committee before they make their recommendation. Failure to do so may contribute to an unfavorable recommendation to the Minister. Interest group concerns relating to health and safety may be brought to the Manager of Licensing or a Regional Development Officer at any time.

The Department of Justice points out that this process is not an appeal (which involves an outside individual or party making a binding decision), it is simply a review. The Appeals Committee's recommendation is not binding on the Minister. Generally, Ministers' licensing decisions are not open for appeal or review in any federal or provincial departments. Judicial review is the only exception, and this is done only by the Supreme Court or Superior Courts, in cases where there may have been an error of law made by the Minister. In this situation, if the consultation is properly handled from the beginning and the growers and interest groups have put forward all pertinent information, there is neither reason nor precedent for an appeal or review of the Minister's decision.

Recommendation:

20. **We recommend that there be a review of the licensing appeal process in order to make it consistent.** Growers and interest groups should be treated equally, regarding the request for a review of the Minister's decision.

Environmental Considerations

Environmental issues relating to aquaculture are not currently a concern for interest groups in this province, except in the Bay D'Espoir area where finfish farming is prevalent. Some local residents attribute any negative environmental change to fish farming operations. Often, residents don't always realize that growers need to maintain clean water to produce healthy fish. The finfish farmers in this province are developing environmentally friendly culture practices which are being adopted by other provinces. It is critical that information regarding aquaculture's environmental impact (or lack thereof) be available to the public.

Growers are concerned that interest groups may contaminate water, making it unsuitable for growers. Inadequate treatment of sewage near a shellfish farm could render the site unusable. Also, fish plants and industrial effluent pose a hazard to both finfish and shellfish farms.

Recommendations:

21. **We recommend that Environment Canada, DFO and the Department of Environment and Labour ensure that the activities of aquaculturists and other users do not contaminate the aquatic environment.**
22. **We recommend that growers, NAIA, and government ensure that environmentally sound culture and processing practices are being used throughout the province.**

Land (Water) Use Planning

The application of land use planning methodologies and techniques to the Province's coastal resources would be of considerable benefit in avoiding, resolving or mitigating conflict situations in the province's

aquaculture industry.

Currently, there are two land use planning activities underway which should contribute positively to conflict resolution in the aquaculture industry. The first is the land use policy review being undertaken by the Government of Newfoundland and Labrador; the second is the Community-Based Coastal Resource Inventory initiative being conducted by the Government of Canada.

The primary objective of the Province's land use policy review is to develop for publication a comprehensive provincial land use policy that will: outline government's priorities for use of the land and its resources; establish government's sectoral and cross-sectoral policies for land development and protection; expand regional land resource management planning; and, provide improved mechanisms to resolve land use conflicts.

As part of the review, government's intention is to undertake a public consultation process to ensure that land use policies and plans are developed and implemented in a manner that is transparent and inclusive.

In the case of aquaculture, there is a desire to have a land (water) planning process that will allow designation of aquaculture areas for exclusive or integrated aquaculture development. Such a process would be designed to recognize the value of aquaculture to regional and community development, and protect that value from activities which would be detrimental to development of the industry (e.g. waste disposal). At the same time, a land use designation process should, to the greatest extent possible, support the coexistence of marine/coastal resource users. However, where coexistence is not possible, and other resources uses are deemed to be of greater value (e.g. historic resources, commercial fisheries) aquaculture may be restricted accordingly.

In January 1997, the Government of Canada enacted the *Oceans Act*. This act identified the Department of Fisheries and Oceans (DFO) as the lead federal agency responsible for the management and protection of Canada's oceans. As part of its responsibility to prepare a national oceans strategy, DFO initiated the Community-Based Coastal Resource Inventory (CCRI) in Newfoundland and Labrador. The CCRI involves the compiling and documenting of coastal resource information through a community-based approach. Current and historical information is collected on such resources as marine fish and mammal resources, municipal infrastructure (e.g., sewage outfalls, saltwater intakes), coastal infrastructure (e.g. aquaculture sites, processing plants, navigation routes, power generating plants), and culture and tourism resources (e.g., historic sites, ship wrecks, recreation areas).

The information collected has a variety of uses; they include: economic development, environmental assessment, emergency response planning, and of interest to aquaculture - conflict avoidance or resolution. To date, inventories have been completed or are ongoing in several areas of the province, including Green Bay, and the Bay d'Espoir area.

Recommendations:

23. **We recommend that the provincial government implement authoritative mechanisms for aquaculture land/water use planning and land/water designations that will protect the resource and guide the development of the province's aquaculture industry.**
24. **We recommend the continuation of the Community-Based Coastal Resource Inventory as a means to identify and quantify coastal resource uses so as to avoid, resolve, or mitigate conflicts between competing resource users.**

25. **We recommend that resource requirements of the aquaculture industry be considered on an equitable basis with other coastal/aquatic resource users.**
26. **We recommend that, to the greatest extent possible, government policy support the coexistence of aquaculture with other coastal/aquatic resource uses.**

SECTION FOUR: AGENCY ROLES

In addition to the recommendations dealing with the growers and the general public, there are other roles which various agencies should seriously consider. Those mentioned here do not deal specifically with the issues discussed previously and, yet, will have a significant impact on the degree of conflict relating to aquaculture.

Department of Fisheries and Aquaculture (DFA)

The Department of Fisheries and Aquaculture is the central licensing body for the aquaculture industry, directing applications to the referral agencies and coordinating responses. The Aquaculture Licensing Committee, consisting of a number of employees from the Aquaculture Division reviews applications and formulates recommendations which are forwarded to the Minister of Fisheries and Aquaculture, who has the final decision. The department's mandate is to foster and enforce responsible development of the industry according to the regulations stipulated in the Aquaculture Act.

27. **We recommend that DFA coordinate communication within the Department to ensure swift and consistent dealings with the public, industry and other government agencies.**
28. **We recommend that DFA continue to develop an Aquaculture Geographic Information System (GIS) for the province. This will help to identify areas of potential conflict.**
29. **We recommend that senior DFA officials advise other government agencies of the significant impact that illegal cabins may have on shellfish farms.**
30. **We recommend that DFA contact individual Regional Economic Development Boards with aquaculture interests to discuss their potential roles, if any, in the conflict resolution process. Of particular interest are possible roles in the development and promotion of the industry and mediation of stakeholder meetings.**
31. **We recommend that DFA keep REDBs informed of developments and issues within the industry.**

Department of Fisheries and Oceans (DFO)

The Department of Fisheries and Oceans promotes and supports development of the aquaculture industry. Their responsibilities in terms of ensuring that the industry is being developed/ managed properly are with respect to: the impacts of aquaculture activity on wild finfish and shellfish stocks and their habitat; fish health; public health; and the transport/transfer of live fish. There is a Memorandum of Understanding between DFO and DFA which eliminates the duplication of services by the two agencies.

It also unites the two agencies in the endeavour to develop the aquaculture industry by enabling them to share responsibilities such as compiling and publishing statistical information.

32. **We recommend that DFO continue to ensure the accuracy of information collected in the coastal resource inventory program and where appropriate and possible, quantify traditional fishing activity.**
33. **We recommend that DFO work with DFA to develop a Geographic Information System (GIS) for the province.**

Canadian Coast Guard (CCG)

The Canadian Coast Guard protects the rights of the public to safe navigation. They work with the Aquaculture Licensing Committee by evaluating license applications in light of the Navigable Waters Protection Act and approving the application, proposing changes to the application or rejecting those which interfere with safe navigation. They take an active role in conflict resolution, including the production of a site-marking video. Their role is increasingly one of enforcement. Widespread inspections of aquaculture sites are planned for Summer 1998, followed by strict enforcement measures to ensure province-wide compliance with regulations.

34. **We recommend that CCG work with DFA to streamline the Public Notice procedure.** There should be only one notice published for every application.

Newfoundland Aquaculture Industry Association (NAIA)

NAIA acts as an industry advocate, coordinating research and development, training and communication within the industry and between industry and government. While primarily interested in developing the aquaculture industry to its full potential, NAIA sees the need for conflict reduction strategies and is willing to cooperate in addressing conflict issues.

35. **We recommend that NAIA coordinate the flow of information between industry and agencies dealing with aquaculture.**
36. **We recommend that NAIA increase the distribution of the Association's newsletter to interest groups and Regional Economic Development Boards.**
37. **We recommend that NAIA coordinate development of an Aquaculture Industry Code of Practice.** All forms of aquaculture in the province should be addressed in this document. Every farmer should possess a copy of the Code of Practice for their particular type of culture. This document must include guidelines for avoiding conflict and recommendations in dealing with conflict which may occur.

Regional Economic Development Boards (REDBs)

The REDBs, of which there are 20, are primarily concerned with economic development opportunities within their respective regions. There are regions where the local REDB has identified aquaculture as a priority, and will therefore be active participants in aquaculture development. In the case of aquaculture conflict management, the study considers a possible role for the REDBs in aquaculture promotion and

conflict mediation.

38. **We recommend that REDBs coordinate and distribute information on aquaculture development opportunities within their respective regions.**
39. **We recommend that the REDBs act as a vehicle to promote aquaculture development within the Economic Zones in their regions.**
40. **We recommend that when possible and appropriate, REDBs should take an active role in the mediation of conflict situations, or potential conflicts, between industry participants, other stakeholders and government. In order to be acceptable to the parties involved, REDBs must be perceived to be qualified and objective mediators.**

Other Agencies

There are several other government departments/agencies that are part of the aquaculture licensing/regulating process and in some instances, they contribute directly or indirectly to conflict resolution or avoidance. Within the provincial government, there is the Department of Environment and Labour, the Department of Government Services and Lands, the Department of Tourism, Culture and Recreation, and the Department of Municipal and Provincial Affairs. Within the Federal government, besides the Department of Fisheries and Oceans/Canadian Coast Guard, there is also Environment Canada.

41. **We recommend that other government agencies (*e.g. Municipal Affairs and Crown Lands*) enforce the existing policy which prevents onshore development within 500m of existing shellfish farms.**
42. **We recommend that these agencies ensure timely responses to potential conflict issues.**

CONCLUSION

Newfoundland and Labrador, in many ways, is at the cutting edge of the aquaculture industry. Salmonid farmers in Bay D'Espoir are taking a lead role in developing environmentally responsible farming practices. Shellfish growers in the province have been designing and building their own equipment for harvesting shellfish during the winter. With such ingenuity and the ability to adapt to special local conditions, Newfoundland aquaculturists have the resources and skills to effect a tremendous change on the current levels of production.

However, in some regions, the incidence of conflict has significantly delayed aquaculture development. The Department of Fisheries and Aquaculture, along with other agencies involved in the aquaculture industry, must not only manage the development of the industry, but address the concerns of local citizens.

The aquaculture industry, interest groups and government are showing widespread support for reducing aquaculture-related conflict, although each group may perceive very different means to resolution. New policies and the resolve to enforce regulations are starting to make a difference. Also, the cooperation of growers in complying with these regulations is a favorable step.

Interest groups are simply reacting to what they perceive to be fact. They have seen some flagrant violations of site maintenance regulations and some inconsistencies within the regulation of the industry and they fear future aquaculture development will follow the same pattern. They also have low opinions of the magnitude of the economic impact these farms could create. Enforcement and education will begin to alleviate the fears and forge new relationships between the interest groups and industry.

The emphasis must be on conflict avoidance. To this end, four resounding needs have emerged throughout the research:

- **effective communication between government, industry, and interest groups;**
- **consistent enforcement of regulations;**
- **educating general public about the aquaculture industry; and**
- **a land (water) use designation/planning process.**

We need a conflict resolution strategy that encourages discussion instead of confrontation and makes aquaculture a part of the community rather than something imposed upon it.

- adapted - Millar and Aiken, 1995. Conflict Resolution in Aquaculture: A Matter of Trust. In: Cold Water Aquaculture in Canada. Canadian Institute for Research on Regional Development.

Summary of Recommendations

1. We recommend support of the existing "Moorings" policy, with greater emphasis on the eventual removal of legal shore fasted moorings that are or may be a source of conflict.
2. We recommend that DFA coordinate workshops for fishers in areas where aquaculture is, or will be occurring.
3. We recommend that government and/or NAIA take a lead role in producing and distributing supplementary materials (*pamphlets, etc.*) to follow up the site-marking video.
4. We recommend periodic broadcast of the site-marking video on community channels, where applicable.
5. We recommend that a DFA Aquaculture Inspector be on site when anchors are placed at outer margins of new sites and expansions.
6. We recommend that new entrants to the aquaculture industry must have formal aquaculture training (or hire a trained consultant) prior to setting any gear.
7. We recommend that the proposed Aquaculture Industry Code of Practice include a detailed reference section on site set up and marking (see Recommendation 37).

8. We recommend that license applications require the names and phone numbers of each person the applicant has contacted.
9. We recommend that proposed sites be discussed in stakeholder meetings with one or two representatives of each interest group, rather than in large, public meetings.
10. We recommend that public meetings (including, if possible, the smaller scale meetings proposed in recommendation # 9) be mediated by a skilled, objective, and neutral party selected by the applicant and the interest groups concerned.
11. We recommend that Aquaculture Inspectors have a thorough understanding of the aquaculture industry, the gear used and the special concerns of the local area.
12. We recommend that the Aquaculture Code of Practice Manual include a detailed description of everything the Aquaculture Inspector will check during a site inspection.
13. We recommend that Aquaculture Inspectors issue reports directly to farmers within 48 hours of completing an inspection.
14. We recommend that if site deficiencies remain, upon completion of follow-up inspections, the Department of Justice should be advised immediately and prosecution, if necessary, shall begin.
15. We recommend that senior government officials fully support Aquaculture Inspectors and follow through with prosecution initiatives.
16. We recommend that government and NAIA establish a campaign to promote the Newfoundland aquaculture industry.
17. We recommend that DFA take a more active role in ensuring that discarded materials and debris are removed from aquaculture sites.
18. We recommend that proper site maintenance procedures be included in the proposed Aquaculture Industry Code of Practice.
19. We recommend that the Public Notice state that all written submissions must include phone numbers.
20. We recommend that there be a review of the licensing appeal process in order to make it consistent.
21. We recommend that Environment Canada, DFO and the Department of Environment and Labour ensure that the activities of aquaculturists and other users do not contaminate the aquatic environment.
22. We recommend that growers, NAIA, and government ensure that environmentally sound fish culture and processing practices are being used throughout the province.
23. We recommend that the provincial government implement authoritative mechanisms for

aquaculture land/water use planning and land/water designations that will protect the resource and guide the development of the province's aquaculture industry.

24. We recommend the continuation of the Community-Based Coastal Resource Inventory as a means to identify and quantify coastal resource uses so as to avoid, resolve, or mitigate conflicts between competing resource users.
25. We recommend that resource requirements of the aquaculture industry be considered on an equitable basis with other coastal/aquatic resource users.
26. We recommend that, to the greatest extent possible, government policy support the coexistence of aquaculture with other coastal/aquatic resource uses.
27. We recommend that DFA coordinate communication within the Department to ensure swift and consistent dealings with the public, industry and other government agencies.
28. We recommend that DFA continue to develop an Aquaculture Geographic Information System (GIS) for the province. This will help to identify areas of potential conflict.
29. We recommend that senior DFA officials advise other government agencies of the significant impact that illegal cabins may have on shellfish farms.
30. We recommend that DFA contact individual Regional Economic Development Boards with aquaculture interests to discuss their potential roles, if any, in the conflict resolution process.
31. We recommend that DFA keep REDBs informed of developments and issues within the industry.
32. We recommend that DFO continue to ensure the accuracy of information collected in the coastal resource inventory program and where appropriate and possible, quantify traditional fishing activity.
33. We recommend that DFO work with DFA to develop a Geographic Information System (GIS) for the province.
34. We recommend that CCG work with DFA to streamline the Public Notice procedure.
35. We recommend that NAIA coordinate the flow of information between industry and agencies dealing with aquaculture.
36. We recommend that NAIA increase the distribution of the Association newsletter to interest groups and REDBs.
37. We recommend that NAIA coordinate the development of an Aquaculture Industry Code of Practice.
38. We recommend that REDBs coordinate and distribute information on aquaculture development opportunities within their respective regions.

39. We recommend that the REDBs act as a vehicle to promote aquaculture development within the Economic Zones in their regions.
40. We recommend that when possible and appropriate, REDBs should take an active role in the mediation of conflict situations, or potential conflicts, between industry participants, other stakeholders and government. In order to be acceptable to the parties involved, REDBs must be perceived to be qualified and objective mediators.
41. We recommend that other government agencies (*e.g. Municipal Affairs and Crown Lands*) enforce the existing policy which prevents onshore development within 500m of existing shellfish farms.
42. We recommend that these agencies ensure timely responses to potential conflict issues.